DT	Carousel: Each group to have a 9 week block per year.
Year 7	Personal Storage Project
	Health and safety: Pupils will be introduced to Health and Safety in the Technology workshop. They will identify hazards and agree to safety rules for their own safety and others around them. **Materials:** Pupils will learn the different properties of hardwood and softwood and begin to select the right material for a product. They will also experiment with the use of Acrylic. **Design:** Pupils will design their own storage box and produce a 3D isometric drawing to help with production. They will use CAD/CAM to personalise their box. **Production:** Pupils will explore the use of hand tools to mark out and cut softwood. They will shape their parts using a belt sander and assemble their product using PVA glue. They will use glass paper and teak oil to achieve a good surface finish. **Evaluation:** Pupils will begin to evaluate their products and suggest possible improvements.
Year 8	Automata – Creating Movement
	Health and safety: Pupils will build on the Health and Safety rules from Year 7, will return tools to their correct places and identify ways they could work more safely. They will choose and use PPE independently. **Materials:** Pupils will discuss why we need manufactured boards and consider the effects of deforestation and pollution on the environment. They will select and use appropriate materials for their product. **Design:** Pupils will design their Automata and select the type of movement they want. They will follow a General Assembly drawing to produce the frame and design the cam and moving parts of their Automata using CAD. **Production:** Pupils will mark out using a steel rule and try square with staff guidance and then drill holes independently using the pillar drill. They will use different grades of abrasive paper to achieve a good surface finish to ensure that their product functions as intended. **Quality Control:** Pupils will use templates to create critical parts accurately and then assemble and test their product. **Evaluation:** Pupils will evaluate other people's practical work and be able to accept constructive criticism.
Year 9	Ballista / Clock Project
	Health and safety: Pupils will identify Health and Safety issues in the workshop and select appropriate PPE to reduce risk of accidents. **Materials:** Pupils will use a range of materials and join them in different ways. They will discuss the environmental impact of using plastic materials and consider the effects of crude oil extraction to produce plastics. **Design:** Pupils will design their ballista in 3D and create an elevational drawing of their design. They will use

	CAM to produce quality components for their clock face. **Development:** Pupils will work as part of a team to solve problems and adapt their ballista to achieve more consistent firing. **Production:** Pupils will mark out using a steel rule, try square and protractor with staff guidance. They will batch produce parts for their product using a jig and select appropriate joining techniques to assemble their product. **Quality Control / Testing:** Pupils will test their product on a firing range and apply scoring criteria to their product. They will use quality control measures to ensure symmetry and use a template / jig to create critical parts accurately. **Evaluation:** To identify how they would change their product if they made another and compare likely results of making components manually or by using CAD/CAM. They will discuss how they could advertise their product if it was put on sale.